



PATENT CASE IN01155K

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: )  
S. Venkatraman *et al.* ) Examiner: Not assigned yet  
Serial No.: 09/836,636 ) Group Art Unit: Not assigned yet  
Filed: April 17, 2001 ) Atty. Docket No.: IN01155K

For: **Macrocyclic NS3-Serine Protease Inhibitors of Hepatitis C Virus Comprising Alkyl and Aryl Alanine P2 Moieties**

Assistant Commissioner for Patents  
Washington, D.C. 20231

**INFORMATION DISCLOSURE STATEMENT**

Sir:

It is requested that the following documents cited in the application, as listed below and in the accompanying form PTO-1449, be considered and made of record.

Documents cited in the Application:

U.S. 5,712,145  
WO 89/04669  
WO 98/17679  
WO 98/22496  
WO 99/07734  
WO 00/09558  
WO 00/09543  
EP 381 216

Publications:

Pizzi *et al.* (1994) Proc. Natl. Acad. Sci (USA) 91:888-892  
Failla *et al.* (1996) Folding & Design 1:35-42  
Kollykhalov *et al.* (1994) J. Virol. 68:7525-7533  
Komoda *et al.* (1994) J. Virol. 68:7351-7357  
Landro *et al.* (1997) Biochem. 36:9340-9348  
Ingallinella *et al.* (1998) Biochem. 37:8906-8914  
Llinàs-Brunet *et al.* (1998) Bioorg. Med. Chem. Lett. 8:1713-1718  
Martin *et al.* (1998) Biochem. 37:11459-11468  
Dimasi *et al.* (1997) J. Virol. 71:7461-7469  
Martin *et al.* (1997) Protein Eng. 10:607-614  
Elzouki *et al.* (1997) J. Hepat. 27:42-48  
BioWorld Today 9(217): 4 (November 10, 1998)  
Berenguer *et al.* (1998) Proc. Assoc. Am. Physicians 110(2):98-112  
Hoofnagle *et al.* (1997) N. Engl. J. Med. 336:347  
R. Zhang *et al.*, Analytical Biochemistry, 270 (1999) 268-275

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D. Barlos *et al*, *Biochemistry*, 37 (1998) 3392-3401  
K. Barlos *et al*, *Int. J. Pept. Protein Res.*, 37 (1991), 513-520  
K. Holmber *et al*, *Acta Chem. Scand.*, B33 (1979) 410-412  
S. Agrawal *et al*, "Development and Characterization of Hepatitis C Virus Serine  
Protease Cell-based Trans-Cleavage Assay", *Hepatology* Supplement to Volume 30 (No. 4,  
Part 2, October 1999), *Abstract No. 615* (Proceedings of AASLD 50<sup>th</sup> Annual Meeting,  
Dallas, Texas, November 5-9, 1999.  
L. Hughes, *Org. Reactions*, 42 (1992) 335.  
R. F. Heck, *Org. Reactions*, 27 (1989) 345-390.

The submission of these documents is not to be presumed as an admission that these documents are prior art. The documents are being furnished solely for their possible utility in the examination of the present case. Since no Office Action has issued on the merits of this case, Applicants believe that no fee is due at this time. If, however, any fees are due, the Office may charge such fees to Deposit Account No. 19-0365.

If the Examiner has any questions, the Examiner is invited to contact the undersigned.

August 6, 2001  
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Respectfully submitted,

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I hereby certify that this correspondence  
is being deposited with the U.S. Postal  
Service as First Class Mail in an envelope  
addressed to Assistant Commissioner for  
Patents, Washington, D.C. 20231 on

August 6, 2001

Palaiyur S. Kalyanaraman  
Registered Representative

8/6/2001  
Signature and Date of Signature

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| FORM PTO-1449  |  | U.S. DEPARTMENT OF COMMERCE<br>PATENT AND TRADEMARK OFFICE |  | ATTY. DOCKET NO.:<br>IN01155K    | SERIAL NO.:<br>09/836,636 |
| <b>INFORMATION DISCLOSURE STATEMENT<br/>BY APPLICANT</b><br><br><i>(Use several sheets if necessary)</i> |  |  |  | APPLICANT:<br>VENKATRAMAN, et al |                           |
|  |  |  |  | FILING DATE:<br>April 17, 2001   | GROUP:<br>To Be Assigned  |

**U.S. PATENT DOCUMENTS**

| *EXAMINER<br>INITIAL | DOCUMENT<br>NUMBER | DATE | NAME | CLASS | SUB-<br>CLASS | FILING DATE IF<br>APPROPRIATE |
|----------------------|--------------------|------|------|-------|---------------|-------------------------------|
| AA                   | U.S. 5,712,145     |      |      |       |               |                               |
| AB                   |                    |      |      |       |               |                               |

**FOREIGN PATENT DOCUMENTS**

|    | DOCUMENT<br>NUMBER | DATE | COUNTRY | CLASS | SUB-<br>CLASS | TRANSLATION<br>YES | NO |
|----|--------------------|------|---------|-------|---------------|--------------------|----|
| AC | WO 89/04669        |      |         |       |               |                    |    |
| AD | WO 98/17679        |      |         |       |               |                    |    |
| AE | WO 98/22496        |      |         |       |               |                    |    |
| AF | WO 98/07734        |      |         |       |               |                    |    |
| AG | WO 00/09558        |      |         |       |               |                    |    |
| AH | WO 00/09543        |      |         |       |               |                    |    |
| AI | EP 381 216         |      |         |       |               |                    |    |
| AJ |                    |      |         |       |               |                    |    |
| AK |                    |      |         |       |               |                    |    |

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

|    |  |
|----|--|
| AL | Pizzi, (1994) <i>Proc. Natl. Acad. Sci(USA)</i> 91:888-892   |
| AM | Failla (1996) <i>folding &amp; Design</i> 1:35-42  |
| AN | Kollykhalov (1994) <i>J. Virol.</i> 68:7525-7533   |
| AO | Komoda (1994) <i>J. Virol.</i> 68:7351-7357  |
| AP | Landro (1997) <i>Biochem</i> 36:9340-9348  |
| AQ | Ingallinella (1998) <i>Biochem</i> 37:8906-8914  |
| AR | Llinas-Brunet (1998) <i>Bioorg. Med. Chem. Lett.</i> 8:1713-1718   |
| AS | Martin (1998) <i>Biochem</i> 37:11459-11468  |
| AT | Dimasi (1997) <i>J. Virol.</i> 71:7461-7469  |
| AU | Martin (1997) <i>Protein Eng.</i> 10:607-614   |
| AV | Elzouki (1997) <i>J. Hepat.</i> 27:42-48   |
| AW | <i>Bio World Today</i> 9(217): 4 (November 10, 1998)   |
| AX | Berenguer (1998) <i>Proc. Assoc. Am. Physicians</i> 110(2): 98-112   |
| AY | Hoofnagle (1997) <i>New England Journal Med.</i> 336:347   |
| AZ | Zhang (199) <i>Analytical Biochemistry</i> 270:268-275   |
| BA | Sali (1998) <i>Biochemistry</i> 3392-3401  |
| BB | Barlos (1991) <i>Int. J. Pept. Protein Res</i> 513-520   |
| BC | Holmberg (1979) <i>Acta Chem. Scand.</i> , B33:410-412   |
| BD | Agrawal(1999) <i>Hepatology</i> Supplement to Vol 30 "Development and Characterization of Hepatitis C Virus Serine Protease Cell-based Trans-Cleavage Assay" |
| BE | Hughes (1992) <i>Org. Reactions</i> 42:335   |
| BF | Heck (1989) <i>Org. Reactions</i> 27:345-390   |

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|----------|-----------------|
| EXAMINER | DATE CONSIDERED |
|----------|-----------------|

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.